DOCUMENT RESUME

ED 178 482 SP 014 630

AUTHOR Freischlag, Jerry
TITLE Anxiety, Attribution, and Sport Competition: Assessment Under Two Field Conditions.
PUB DATE [78]
NOTE 16p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adolescence; *Anxiety; *Athletics; Competition; Coping; *Locus of Control; Low Achievement Factors; Peer Evaluation; *Psychological Patterns; Self Concept; *Stress Variables; *Task Performance

ABSTRACT

The effects of winning or losing and the impact of being "cut" from an athletic team on the self-concept of a volunteer group of adolescent boys was examined. State anxiety levels both before and after competitive events and "try-outs" were studied by means of a short form of Spielberger's children's trait anxiety inventory questionnaire. Results indicate a difference in self-concept, team performance rating, and task difficulty perception between "winners" and "losers." Those boys who made the team assigned themselves higher personal effort and lower luck attributes than those boys who were cut. However, the contribution of self and team ability to the outcome of a contest did not vary between winning and losing teams. In both cases, losses were attributed to causes external of the team. This finding is contrary to the bulk of previous research in the field. (IH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED178482

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Jerry Freischlag

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ANXIETY, ATTRIBUTION, AND SPORT COMPETITION: ASSESSMENT UNDER TWO FIELD CONDITIONS

Jerry Freischlag

Department of Physical Education

Canisius College, Buffalo, N.Y.

SP014630

As a school and college coach for several years one of my most trying responsibilities was cutting kids as candidates for teams. Psychological trauma and social denigration often were the immediate reactions for those "failing"; I never knew how such experiences influenced more lasting attitudes and behavior. I have continued to be concerned with the psychological effects cutting and losing have on kids because of the significance of sport in the adolescent period. Much of this importance is linked to the social evaluation directed at the participant. The value that peers, coaches, and parents attach to athletic ability is often extremely high and succeeding or failing in sports can have equally discrepant consequences for the athlete. But it might be that associated factors are merely small threads woven into the fabric of adolescence with no particular consequences or meanings.

My initial intention was to examine attitude and self-esteem effects of winning or losing as well as from making or being cut from a sport team. While such a project would have been possible from a procedural standpoint, it would have been untenable to attribute attitude changes solely to an athletic experience.

Attribution theory, following Weiner and others (1971) was chosen for its potential to guide investigation of such psychological relationships. This theory holds that ability, luck, effort, and ease of a task are counted by individuals as the causes of their successes or failures. The work of Iso-Ahola (1975, 1977, 1978), Roberts (1975), and others (Bird, 1977; Bird and Brame, 1978; Gill and Gross, 1978), has tested and extended this theory in sport and laboratory settings. It should

be noted here that success and failure feedback given by the coach is not necessarily the same as the athlete's perception of his performance. Due largely to the efforts of Martens (1977) and his associates, pieces of the anxiety - sport performance puzzle are being put into place. His testing of Spielberger's inventories which measure trait and state anxiety has encouraged the study of anxiety and sport performance.

Focusing on attribution and anxiety variables, while not as broad in scope as the original concern, does assess something of the subtle relationships of athletes' pre-contest emotions, outcomes of competition, and the performer's perceptions of contest results and their causes. Thus, both cognitive and affective dimensions of behavior are assessed. The inclination to get at this problem through a controlled laboratory experiment runs the risk of losing much of the natural reality (validity) of actual sport competition (Scanlon, 1977). Accordingly, the sport of basketball in a summer sport and fitness camp was utilized for the setting of this investigation.

Review of Literature

Winning athletes are usually assumed to have lower anxiety and higher perceived ability than those who lose. Spielberger (1970) holds that threatening situations cause greater A-state increases in high A-trait individuals than those low in A-trait. This theory has not been tested sufficiently in applied settings and both Morgan (1970) and more recently Martens (1977) have acknowledged that few conclusive relationships between anxiety and sport performance can yet be offered to guide sport practitioners.

Scanlon's (1977) series of studies have examined anxiety during various stages of competition with perceptions of the competitive situation. Her findings indicated that competition is generally perceived as threatening (anxiety inducing) and that an inverse relationship exists between winning and post-contest state anxiety.

Perceived causes of individual performance in sports usually show success to be attributed to high ability and effort, both internal qualities, while failure is attributed to the externally oriented qualities of bad luck and task difficulty (Iso-Ahola, 1975; Iso-Ahola and Roberts, 1975; Roberts, 1975). Such an ego-enhancement process is consistent with cognitive theories.

The dynamics of a high-interactive sport group, such as a basketball team, add another dimension to success/failure attributions. Although research is limited, it appears that both self and team ability and effort are judged to be high following success while failing causes a drop in the performer's evaluation of the team's effort and ability with self evaluation unaffected by team failure. Apparently, individuals are willing to share responsibility when they win but unwilling to accept personal responsibility for losing, and in interacting sport group settings, attribute a loss to the team's shortcomings. Self vs. team attributions in such sport settings need clarification inasmuch as this phenomenon has been observed in laboratory task behavior and in one study of a low interactive sport group. It has not been examined among athletes performing individually or in high interactive sport groups.

Although perceived causes (attributions) of behavior are cognitive responses they are also susceptible to success and failure (Bachman, 1964; Zander, 1971). It might therefore be expected that some interaction between state anxiety and attribution should exist in terms of performance outcome.

It is reasonable to attach some contribution to an individual's sport performance from cognitive and emotional sources. Uncovering their relationship would provide important information for motivating athletes and preventing possible dysfunctional responses to competition. This will be discussed at the conclusion of this paper. More specifically, this study attempted to determine the effects of sport competition success and failure on anxiety and attributions.

Procedure

Included in a series of tests given during the summer sport and fitness program's first week were the AAHPER physical fitness battery and the short form of Spielberger's children's trait anxiety inventory. Data from these tests were used for selection and assessment of subjects in the two phases of this research project.

In the first phase, thirty subjects were chosen on the basis of physical fitness from a volunteer group of 40, 13 year old boys who expressed interest in trying out for an All Star basketball team. Those not included were outside the 45th to 65th percentiles of AAHPER norms, within which the sample fell. The try-out procedure, in which half of the candidates would be selected, was explained and special uniforms and medals to be awarded to team members were displayed. Subjects completed

the short form children's state anxiety inventory immediately prior to the first try-out session. Three judges then rated basketball ability of candidates during two days of formal try-outs. Inter-rater reliability coefficient yielded was .84.

On the third day candidates were assembled before all summer program participants. All Star team members were announced, and awards presented to those making the team. Immediately following this ceremony all subjects responded to a questionnaire asking each individual to divide 100 points among the ability, effort, task difficulty and luck attributions according to how important each reason was for his selection or exclusion from the All Star team. This procedure has been developed by Gill and Gross (1978) and reported previously.

The second phase of the project was designed to test the element of team attributions. Thirty two boys were selected from 46, 14 and 15 year old program participants on the basis of physical fitness and interest in participating in a basketball tournament. Two practice sessions were then conducted during which playing ability was rated. Boys were assigned among four teams in order to balance composite abilities of teams; inter-rater reliability of the judges was .79. Trophies and awards to be earned by players relative to the degree of their team's success were displayed. Oppposing teams then played a round robin tournament over a three day period with all members required to play equal amounts of time in each contest. Each game was conducted under regulation conditions. Immediately before each contest players completed the state anxiety inventory; questionnaires were completed after each game on which players were asked both self and team attributions associated with the contest just finished.

Following this second treatment period, all subjects were debriefed with explanations provided of the study undertaken. Human subject guidelines were followed in the investigation.

Results:

Attributions

Means for self attributions of subjects making and being cut in the All Star treatment are shown in Table 1.

TABLE 1

MEANS FOR SELF AND TEAM ATTRIBUTIONS
X TEAM OUTCOME

	Ability		Effort		Task Difficulty		Luck	
	Self	Team	Self	Team	Self	Team	Self	Team
Winners	39	33	45	56	9	7	7	4
Losers	37	31	23	25	5	11	35	33

Between subjects ANOVA's were performed on these and other data for main effects only with significance set at the .05 level. Multivariate and regression analyses, while desired, were not run due to computer problems but will be in the near future.

Subjects who made the team had higher effort ($F=6.95$) and lower luck ($F=7.65$) attributions than subjects cut. When ability and effort data are combined as a measure of Internality, successful subjects are seen as more internal than unsuccessful subjects ($F=7.95$).

The team dimension did not alter causal attributions. Players on winning teams had higher effort and lower luck attributions for their own as well as

team performances. The contribution of perceived self and team ability to the outcome of a contest did not vary between winning and losing teams. Losses were attributed more to external team causes than were wins.

TABLE 2

MEANS FOR SELF ATTRIBUTIONS X
ALL STAR SELECTION OUTCOME

	Ability	Effort	Task Difficulty	Luck
Made Team	38.0	47.3	5.7	9.0
Cut from Team	27.7	26.0	10.7	35.6

Anxiety

Table 3 represents mean trait and state anxiety scores for both treatments. A-trait was higher ($F=5.60$) among candidates selected for the All Star team than those who were cut. Similarly, A-state was higher in these subjects prior to try-outs ($F=7.61$). Though not significant, there were slight decreases in anxiety from baseline to try-out conditions in both groups.

TABLE 3

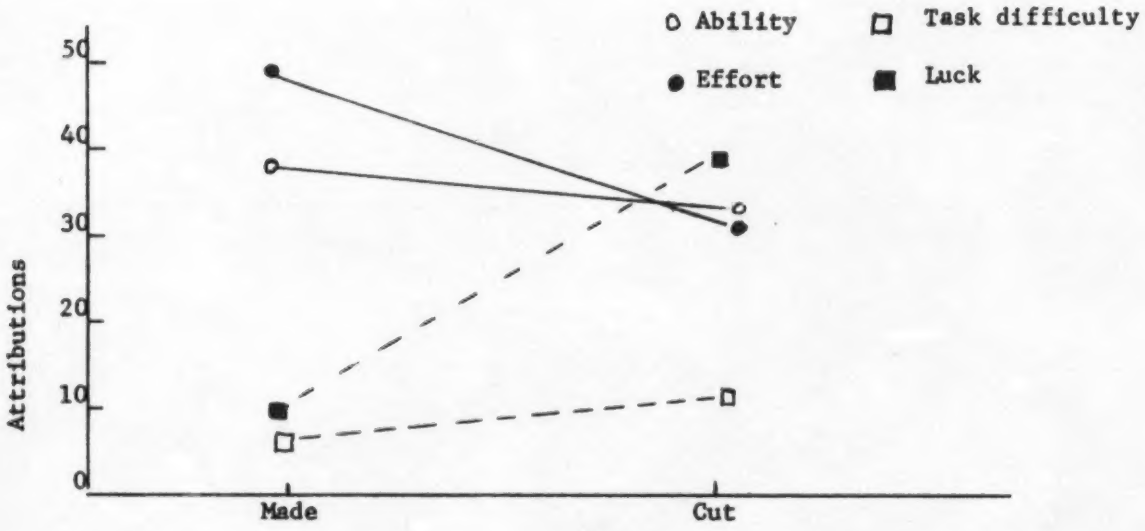
MEANS FOR ANXIETY X TEAM OUTCOME
AND ALL STAR SELECTION OUTCOME

	Team Outcome		All Star Selection	
	Lose	Win	Cut	Made
Trait	31.87	31.62	30.06	34.26
State	24.25	24.50	28.73	33.46

No relationship was found between team outcome and trait anxiety. However, there was a significant decrease in pre-contest (state) anxiety from baseline anxiety scores for both winning and losing team members ($F = 6.66$).

Discussion

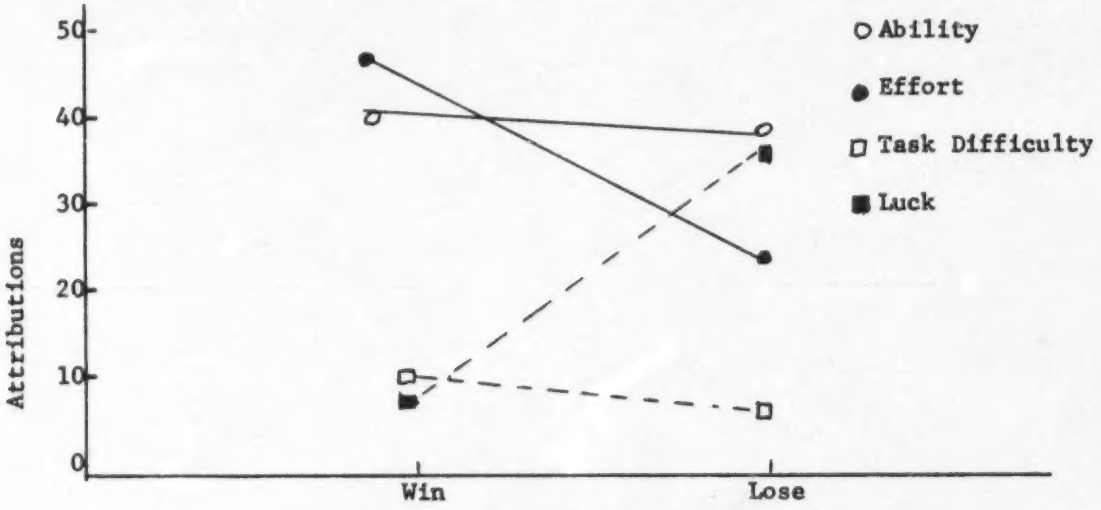
The major question dealt with by this study was what, if any, relationships exist between the outcomes of sport competition and causal attributions and anxiety. The saliency of such a relationship has been amply described by Bain (1978) and others as our "hidden curriculum". Such constructs are best tested in field settings if the reality of sport competition is to be elicited. This is not without risk and the present study experienced problems. One of these was the need to coax a subject who had been cut from the All Star team into completing the attribution questionnaire.



SELF ATTRIBUTIONS X ALL STAR SELECTION OUTCOME

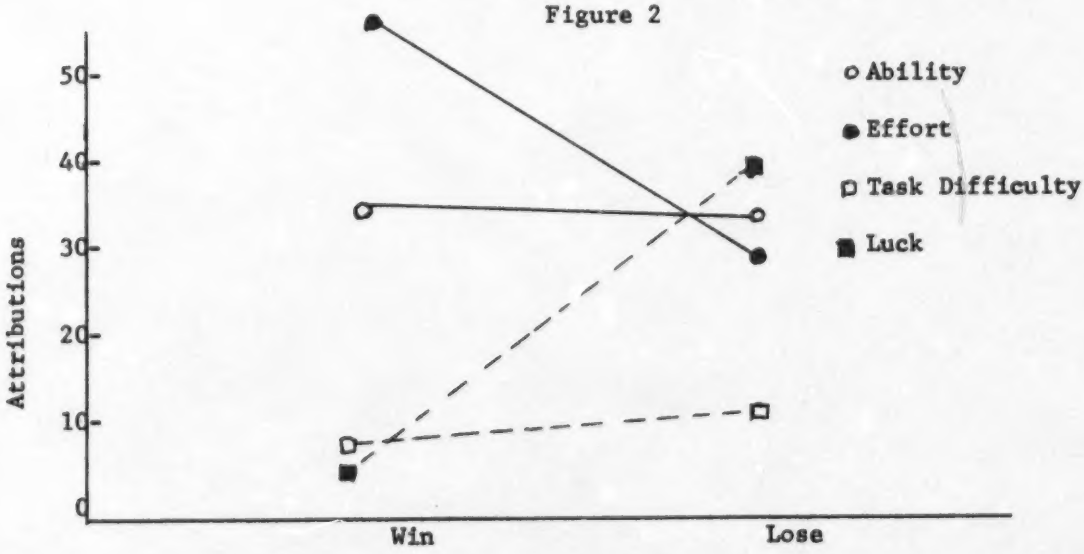
Figure 1

Attribution findings, in general, are consistent with previous research. Individual success is typically perceived as related to one's ability and effort. This pattern of self attribution is similar under individual and team outcomes. Perceptions of self and team effort are an aspect of athletic behavior that a coach can influence effectively.



SELF ATTRIBUTIONS X TEAM OUTCOME

Figure 2

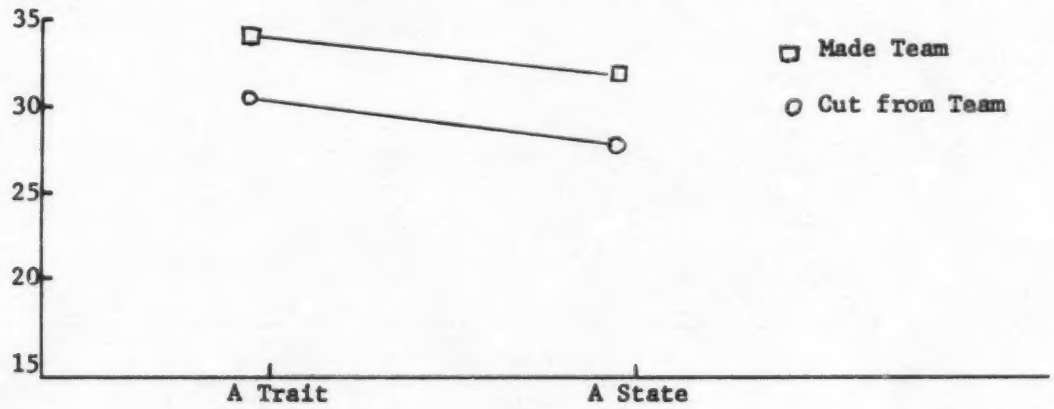


TEAM ATTRIBUTIONS X TEAM OUTCOME

Figure 3

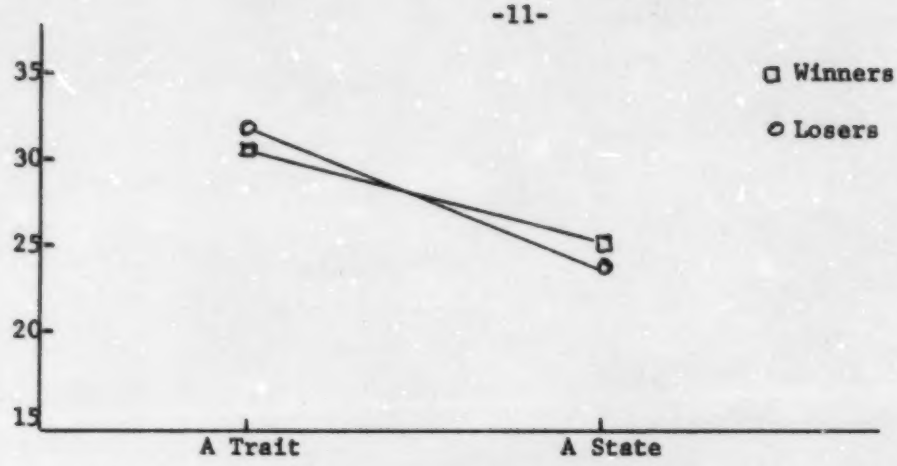
Reward provided for effort could direct cognitions to improve performance. Dysfunctional responses to failing, such as blaming team mates, referees, or spectators might be amenable to counseling, and performance attributions thereby changed to internal perceptions.

The findings in terms of trait and state anxiety are contrary to the bulk of previous research and merit consideration (Figure 4). It was predicted that successful candidates for the All Star team would have lower trait scores than unsuccessful subjects and that try-outs would be more anxiety-inducing among those cut. While both groups showed non-significant decreases in anxiety those who made the team had significantly higher anxiety in both situations. Team competition lowered anxiety of subjects and was unrelated to the outcome of contests.



TRAIT-STATE ANXIETY OF
ALL STAR CANDIDATES

Figure 4



TRAIT-STATE ANXIETY X
TEAM OUTCOME

Figure 5

Three explanations might be offered for these discrepancies. First, some subjects may simply not have understood the questionnaires or answered accurately even though the experimenter read the instructions during testing. Secondly, A-trait may have reflected situational factors present at the beginning of the summer camp program, even though this measure is generally accepted to reflect a stable condition. A third possibility is that some confounding might have been operative from the cultural background of the subjects. Twenty-eight of the thirty All Star subjects and 31 of the 32 team subjects were inner-city Black kids. They might well have seen basketball as "their game" and not perceived involvement as threatening.

Recommendations

Several recommendations emanate from the conduct and results of this investigation - for both research and practice. The concept of anxiety as a stable trait needs to be examined; it may be one of many factors which interact with a given setting. We should also look for a means of behavioral assessment of anxiety with some populations instead of paper and pencil tests.

Cultural backgrounds must also be considered, and at least defined, when studying psychological factors in sport.

Lastly, for those concerned with helping young people optimize their athletic potentials we can make direct inferences in terms of causal attributions. An insidious "learned helplessness"- as Jerry Thomas has phrased it - is a long-term outcome of continual losing (1978). Such cognitions can be reversed and kids trained to associate their efforts with performance. What coaches and parents say to an athlete after a contest direct his or her attributions. Minimizing external rewards and helping athletes accurately perceive the causes of their successes and failures are necessary if internal attributions are to be developed.

References

Bachman, J.G. Ability and control over the task. Journal of Abnormal and Social Psychology, 1964, 69, 272-281.

Bain, L.L. Differences in values implicit in teaching and coaching behaviors. Research Quarterly, 1978, 49, 5-11.

Bird, A.M. Applications from attribution theory: Facilitating sport group perfromance. NCPEAM Proceedings, 1977, 353-358.

Bird, A.M. and Brame, J.M. Self versus team attributions: A test of the "I'm OK, but the team's so-so" phenomenon. Research Quarterly, 1978, 49, 260-268.

Gill, D.L. and Gross, J.B. The influence of group success-failure on selected intrapersonal variables. paper presented at North American Society for Psychology of Sport and Physical Activity conference, Tallahassee, Florida, May 23, 1978.

Iso-Ahola, S. A test of the attribution theory of success and failure with Little League baseball players. Mouvement: Proceedings of the 7th Symposium on Psycho-motor Learning and Psychology of Sport. October 1975.

Iso-Ahola, S.E. and Roberts, G.C., Causal attributions following success and failure in an achievement task: A test of self enhancement. In Psychology of Sport and Motor Behavior II, D.M. Landers (Ed.), University Park, Pa.: The Pennsylvania State University Press, 1975.

Iso-Ahola,S. Effects of self-enhancement and consistency on causal and trait attributions following success and failure in motor performance. Research Quarterly, 1977, 48, 717-726.

Iso-Ahola, S. Perceiving the causes of objective and subjective outcomes following motor performance. Research Quarterly, 1978, 49, 62-70.

Martens, R. and Gill, D.L. State anxiety among successful and unsuccessful competitors who differ in competitive trait anxiety. Research Quarterly, 1976, 47, 698-708.

Martens, R. Sport Competition Anxiety Test. Champaign, Ill.: Human Kinetics, 1977.

Morgan, W.P. Pre-match anxiety in a group of college wrestlers. International Journal of Sport Psychology, 1970, 1, 7-13.

Overly, N. (Ed.). The experience of schooling. New York: Holt, Rinehart and Winston, 1971.

Roberts, G.C. Win-loss causal attributions of Little League players. Mouvement: Proceedings of the 7th Symposium on Psycho-motor Learning and Psychology of Sport. October 1975.

Scanlon, T.K. Children in competition: Examination of state anxiety and social comparison responses in the laboratory and in the field. NCPEAM Proceedings. 1977a, 340-345.

Scanlon, T.K. Suggested directions for competition research. Quest, Summer 1977b, 66-75.

Spielberger, C.D., Gorsuch, R. and Lushene, R. STAI Manual. Palo Alto, Ca.: Consulting Psychologists Press, 1970.

Thomas, J.R. Attribution theory and motivation through reward: Practical implications for children's sports. In Children in Sport: A Contemporary Anthology, R.A. Magill, M.J. Ash, and F.L. Smoll (Eds.), Champaign, Ill.: Human Kinetics Pub., 1978

Veroff, J. Social comparison and the development of achievement motivation. In Achievement-Related Motives in Children, C.P. Smith (Ed.), New York: The Russell Sage Foundation, 1969.

Weiner, B., and others, Perceiving the Causes of Success and Failure. New York: General Learning Press, 1971.

Zander, A. Motives and Goals in Groups. New York: Academic Press, 1971.